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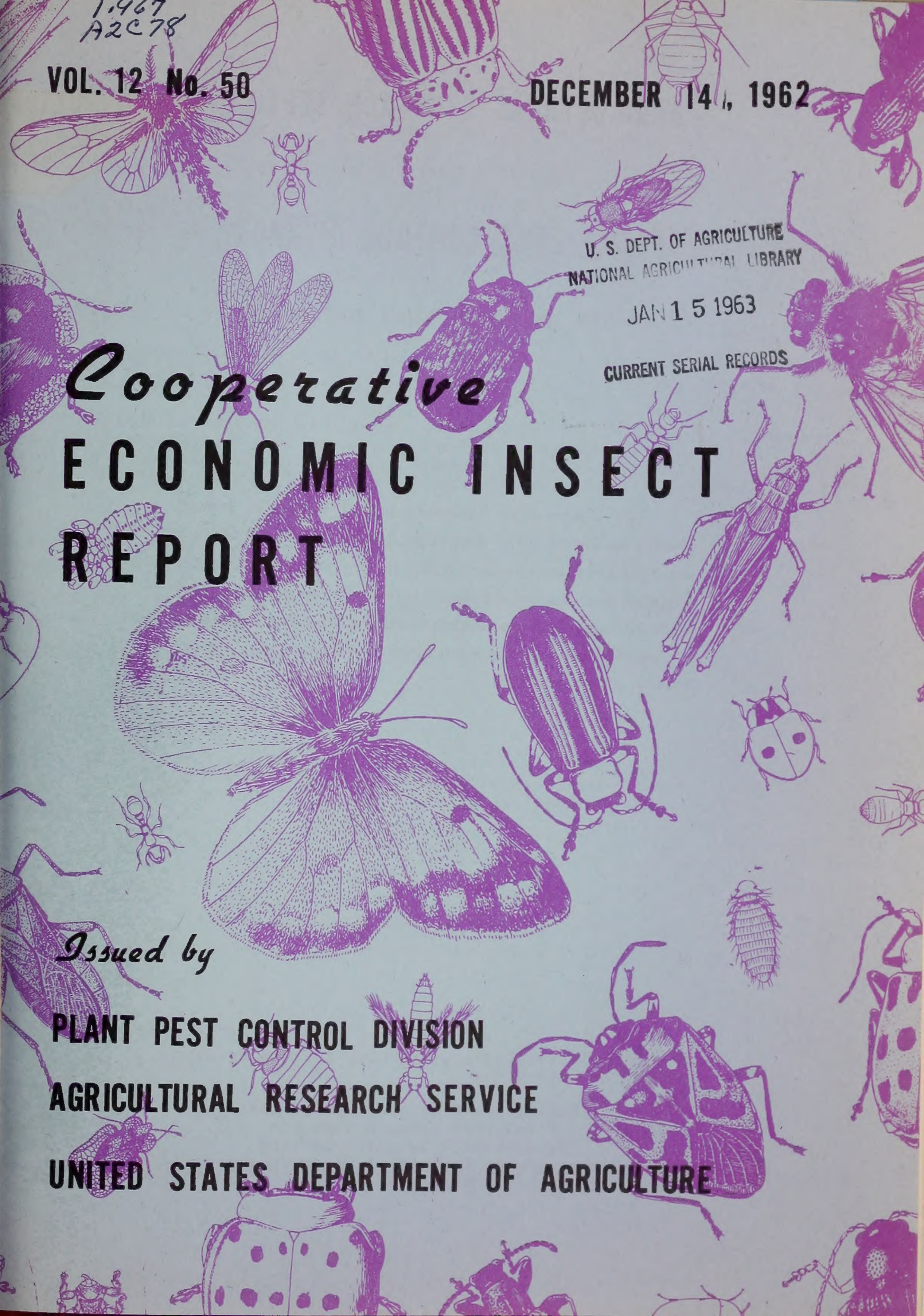

VOL. 12 No. 50

DECEMBER 14, 1962

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Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Survey and Detection Operations
Plant Pest Control Division
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Washington 25, D. C.

Volume 12 December 14, 1962 Number 50

COOPERATIVE ECONOMIC INSECT REPORT

SEASON'S GREETINGS

HIGHLIGHTS

GREENBUG appears to be building up in De Baca and Curry Counties, New Mexico, wheat fields. Not a threat in north central and panhandle areas of Texas at present and very light in Oklahoma and northwest Arkansas. (p. 1245).

TEXAS CITRUS MITE populations highest on record for November in Florida citrus; increasing populations expected during December. CITRUS WHITEFLY found on dooryard citrus in Sacramento, Sacramento County, California; this is a new infestation considerably removed from area of 1959 infestation which was eradicated. (p. 1247).

TOMATO FRUITWORM, BEET ARMYWORM and CABBAGE LOOPER continue to be troublesome on lettuce in Yuma County, Arizona, and GARDEN SYMPHYLAN damaging leaf lettuce roots in greenhouse in Lancaster, Fairfield County, Ohio. (p. 1248).

BARK BEETLES damaging to pines in areas of California. (p. 1249). PINE NEEDLE SCALE and PINE TUBE MOTH damaging locally in Ohio. (p. 1250).

BROWN DOG TICK extremely heavy in Escambia County, Alabama. (p. 1251).

DETECTION

MIMOSA WEBWORM found for first time in Kansas at Kansas City, Wyandotte County. (p. 1250). CITRUS WHITEFLY found in Sacramento, Sacramento County, California. (p. 1247). IMPORTED FIRE ANT collected for first time in Alachua County, Florida. (p. 1253).

SPECIAL REPORTS

1962 Southwestern Corn Borer Survey in Missouri. (p. 1246).

Status of the Screw-worm in the Southwest. (p. 1251).

Hawaiian Insect Notes. (p. 1254).

Boll Weevil Hibernation Surveys in North and South Carolina, Mississippi and Louisiana - Fall 1962. (p.1255).

Fall Census of Forage Crop Insects in Massachusetts. (p. 1257).

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Reports in this issue are for week ending December 7, unless otherwise indicated.

WEATHER OF THE WEEK ENDING DECEMBER 10

Though the grip of winter has finally taken hold, late-season warmth early in the week made possible above-normal averages in the usually colder sections of the country. Arctic air overspread the Nation east of the Rockies, dragging temperatures down to freezing levels on the 7th over much of Florida. Heralding the arrival of the frigid air were heavy snowstorms over the Great Lakes States and into the central Appalachians, where the Cleveland area of northeast Ohio had the greatest snowfall in 8 years.

Temperature averages were significantly below normal from the lower Ohio River Valley southward over the Florida Peninsula, and departures ranged to 8° in the latter area. East of the Great Plains, only the northern sections, from the Northeast across the Great Lakes area, had warmer than normal averages. Green Bay, Wisconsin, set a new December record high of 61° on the 3d and had a 9° weekly departure. In New England, above-normal departures ranged up to 14° in northern regions. Over the Great Plains and Far West, averages were generally above the seasonal normals, except for a small area of slightly below-normal temperatures along the west coast in Oregon and northern California. Lander, Wyoming, had the largest departure, with a 12°.

Although the Far West was predominantly dry during the week, Washington had mostly cloudy and rainy weather, and temperatures above freezing and rain at higher elevations resulted in a reduction of the snowpack. Light snow fell in much of the northern and central Rockies, and Butte, Montana, had a locally heavy snowstorm on the 3d. Farmers and ranchers in Nevada fear a recurrence of drought after last season's respite.

Most of the week's rain and snow fell east of the Mississippi River. Only light snow fell in the north central, where the Arctic storm began its trek, but as the system passed over the Great Lakes, some rain and heavy snow fell from Wisconsin into New York and south into Georgia. As this storm was moving east, the Atlantic storm of the previous period was still retreating with lingering effects in New England, and precipitation totals over 2 inches fell through east-central areas.

The areas of heaviest snowfall were in Michigan, Indiana, Ohio, West Virginia, Pennsylvania and New York, where many totals exceeding a foot were recorded at higher elevations or along the lee of the Great Lakes. However, light snow was reported from as far south as central Georgia. Most of the snow fell on the 5th-7th, but additional amounts fell until after the close of the period. Schools and roads were closed in many areas, powerlines were downed in West Virginia, and drifts were reported 25 feet deep in Pennsylvania. At Paw Paw, Michigan, 33 inches were measured near the close of the week. Depths to 10 inches were reported from the mountains of North Carolina. (Summary supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

GREENBUG (Toxoptera graminum) - NEW MEXICO - Appears to be building up in De Baca and Curry County wheat fields. Counts per linear foot as follows: Ft. Sumner area, up to 10; Broadview area, 2-4; and northern Curry County, 15-20, with occasional spotted infestations up to 35. (N. M. Coop. Rpt.). TEXAS - Scattered, light populations of up to 10 per linear foot present on small grains in areas of north central and panhandle. These light populations do not pose a threat at this time. (Texas Coop. Rpt.). OKLAHOMA - Only very light, noneconomic, populations observed in small grains in Wagoner, Mayes, Coal, Muskogee, Sequoyah Counties, east central area; Jackson and Kiowa Counties, southwest area; and Carter County, south central area. Inspections negative in Beckham, Greer and Washita Counties, southwest. Light, local infestations reported from Cleveland County, central area. (Okla. Coop. Sur.). ARKANSAS - Counts very low, less than one per linear foot, in Washington County, northwest. (Ark. Ins. Sur.).

ENGLISH GRAIN APHID (Macrosiphum granarium) - OKLAHOMA - Occasional specimens found in wheat fields checked in Kiowa, Jackson (southwest) and Muskogee (east central) Counties. (Okla. Coop. Sur.). ARKANSAS - Counts low in northwest, less than 100 per 100 sweeps. (Ark. Ins. Sur.).

CORN LEAF APHID (Rhopalosiphum maidis) - OKLAHOMA - Very light populations found in wheat checked in Beckham, Jackson (southwest) and Carter (south central) Counties. (Okla. Coop. Sur.).

PEA APHID (Macrosiphum pisi) - NEW MEXICO - Generally light in Dona Ana County alfalfa. (N. M. Coop. Rpt.). OKLAHOMA - Light, 3-5 per foot of crown, on alfalfa in Beckham County; populations 100 per 10 sweeps in Greer County, southwest. ARKANSAS - Counts remain about same as previous week in northwest; 200-300 per 100 sweeps. (Ark. Ins. Sur.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - OKLAHOMA - Light, 20 per 10 sweeps, on alfalfa in Carter County, south central area. (Okla. Coop. Sur.).

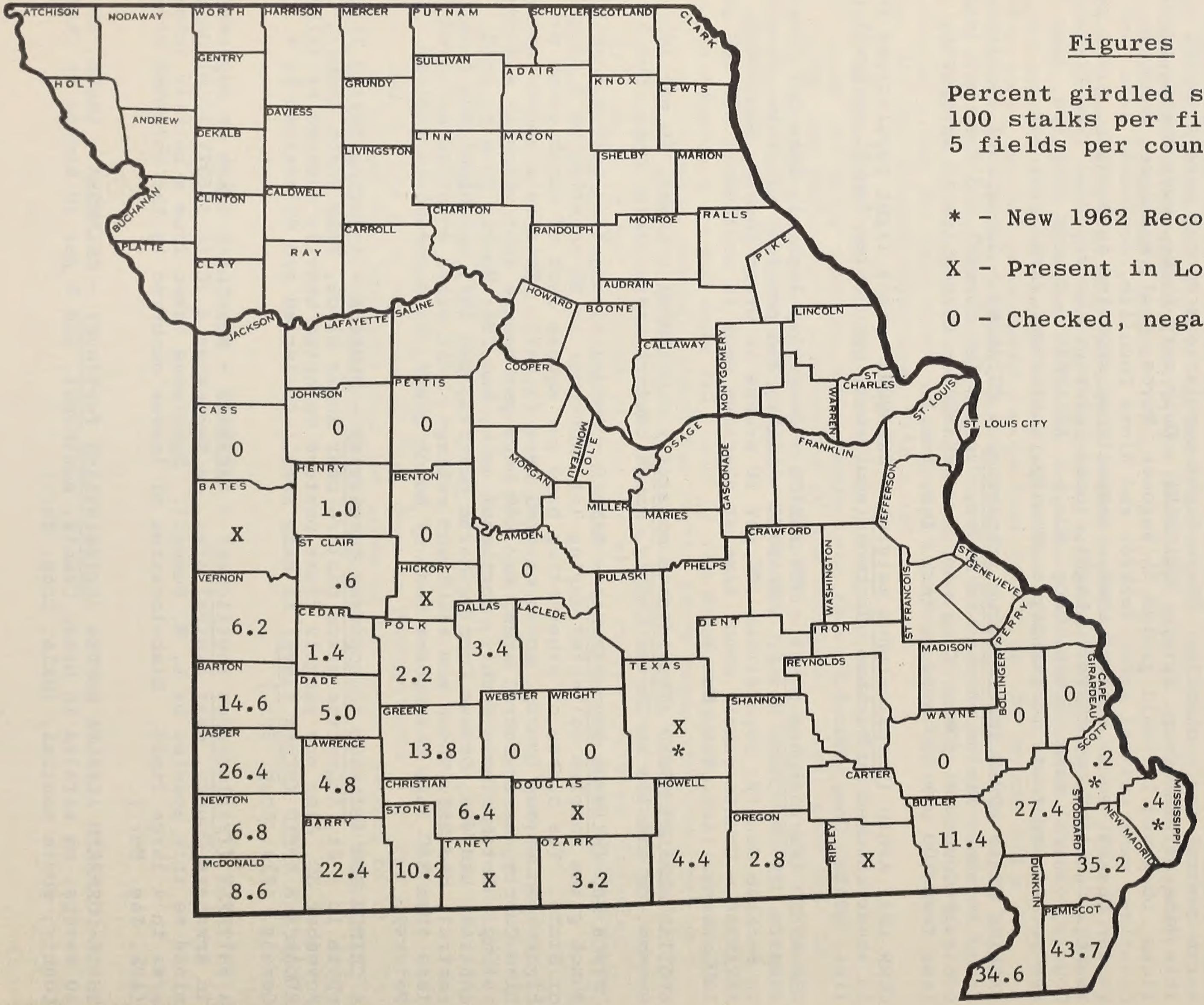
CHINCH BUG (Blissus leucopterus) - KANSAS - Annual hibernation survey completed. Bunch grass samples collected during late November in 55 counties in 6 districts of State. The number of hibernating bugs per square foot of bunch grass was highest in Harvey County, south central area (1,247). This is a severe rating. Linn County, east central area, had 669 bugs per square foot which is a moderate rating. Pottawatomie County, northeast area, had 297; Morris County, east central, had 464; Ottawa County, north central, had 297; and Dickinson County, central, had 288. These are all light ratings. All other counties surveyed had less than 250 bugs per square foot of bunch grass, or noneconomic ratings. (Bell, Peters).

A CHINCH BUG (Blissus leucopterus insularis) - FLORIDA - Injuring fairly large spots in a St. Augustine grass pasture near Belle Glade, Palm Beach County, on November 30. Also one pangola grass pasture reported heavily damaged by YELLOW SUGARCANE APHID (Sipha flava) in same area. Collected and determined by W. G. Genung. (Fla. Coop. Sur.).

A WHITEFLY (Trialeurodes abutilonea) - ARKANSAS - Specimens taken on soybeans in Arkansas County, east central area, on September 4 (CEIR 12(37):1016) determined as this species by L. M. Russell. Specimens taken from a heavily infested area in a large field. Discoloration of leaves occurred in the infested area. (Ark. Ins. Sur.).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - OKLAHOMA - Light, 10 per 10 sweeps, on alfalfa in Greer County, southwest, and 8 per 10 sweeps in Carter County, south central. (Okla. Coop. Sur.).

1962 SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) SURVEY IN MISSOURI



Figures

Percent girdled stalks,
100 stalks per field,
5 fields per county.

* - New 1962 Records

X - Present in Low Numbers

0 - Checked, negative results

LEAFHOPPERS - TEXAS - Several species appearing in rather large numbers on small grains in several areas of State. Some farmers attributing some damage to these pests. (Texas Coop. Rpt.).

A BILLBUG (Sphenophorus venatus vestitus) - FLORIDA - Infesting bahia grass (Paspalum notatum var. Pensacola) in Okeechobee area, Highlands County, on November 18. (Musgrove).

A WHITE GRUB (Phyllophaga sp., apparently hirticula) - NEBRASKA - Reported in September as causing damage to soybeans in Burt County. (Bergman).

A SAP BEETLE (Carpophilus sp.) - FLORIDA - Infesting 160 acres of sweet corn at Pahokee, Palm Beach County, on November 19. (Smith).

GARDEN WEBWORM (Loxostege similalis) - OKLAHOMA - Counts 2 per 100 sweeps reported from alfalfa in Carter County, south central area. This activity is about a month later than past records indicate. (Okla. Coop. Sur.).

A WEBWORM - NEW MEXICO - Lawns heavily infested in some areas of Farmington and Aztec, San Juan County. (N. M. Coop. Rpt.).

GREEN CLOVERWORM (Plathypena scabra) - OKLAHOMA - Infestations of 10 per 10 sweeps reported in alfalfa in Greer County, southwest. This occurrence is about 6 weeks later than past records indicate. (Okla. Coop. Sur.).

FRUIT INSECTS

Citrus Insect Situation in Florida - End of November - CITRUS RUST MITE (Phyllocoptruta oleivora) infested leaves in 55 percent of groves (norm 72 percent); 31 percent economic (norm 49 percent). Infested fruit in 57 percent of groves (norm 70 percent); 33 percent economic (norm 48 percent). Population below average for time of year and will remain near the current level. Infestations now similar on leaves and fruit. Highest districts Bartow, west coast, Indian River and upper east coast. TEXAS CITRUS MITE (Eutetranychus banksi) infested 48 percent of groves (norm 24 percent); 23 percent economic (norm 10 percent). This mite will continue to increase during December. Population is highest on record for November. Infestations vary greatly among and within groves. Highest districts Gainesville, ridge, west coast and Indian River. CITRUS RED MITE (Panonychus citri) infested 32 percent of groves (norm 57 percent); 10 percent economic (norm 26 percent). Populations below normal and will remain low. Very few groves have heavy infestations. Highest district Gainesville. PURPLE SCALE (Lepidosaphes beckii) infested 71 percent of groves (norm 72 percent); 7 percent economic (norm 6 percent). FLORIDA RED SCALE (Chrysomphalus aonidum) infested 29 percent of groves (norm 62 percent); 2 percent economic (norm 7 percent). BLACK SCALE (Saissetia oleae) infested 35 percent of groves (norm 43 percent); 13 percent economic (norm 7 percent). Very few of the last 3 named scales will be important within the next 2 months. CHAFF SCALE (Parlatoria pergandii) and GLOVER SCALE (Lepidosaphes gloverii) continue above normal abundance. All stages of WHITEFLIES are more numerous than average. (Simanton (Citrus Expt. Sta., Lake Alfred)).

CITRUS WHITEFLY (Dialeurodes citri) - CALIFORNIA - Locally heavy on dooryard citrus in Sacramento, Sacramento County. This is a new infestation considerably removed from area of 1959 infestation which had been eradicated. Delimiting survey underway and eradicative treatment will be applied. (Cal. Coop. Rpt.).

CHAFF SCALE (Parlatoria pergandii) - TEXAS - Locally light on citrus trees in Cameron County; over 50 percent of adults are parasitized. (Texas Coop. Rpt., Mullins, Belcher).

ORANGE TORTRIX (Argyrotaenia citrana) - CALIFORNIA - Larvae light in navel oranges on grounds of San Quentin Prison, Marin County. (Cal. Coop. Rpt.).

LEAFHOPPERS (Empoasca spp.) - ARIZONA - Caused injury to tangerines in Phoenix area, Maricopa County. (Ariz. Coop. Sur.).

A RUST MITE (Aculus pelekassi) - FLORIDA - Moderate on Citrus spp. at Sanford, Seminole County (Youtsey, Nov. 9), and at Eustis, Lake County (Bentley, Nov. 27).

YUMA SPIDER MITE (Eotetranychus yumensis) - ARIZONA - Increasing on some citrus fruit in Yuma area, Yuma County. (Ariz. Coop. Sur.).

A FALSE SPIDER MITE (Brevipalpus phoenicis) - FLORIDA - Light on Citrus aurantium at Lakeland, Polk County. (Tyner, Nov. 26).

AMERICAN PLUM BORER (Euzophera semifuneralis) - CALIFORNIA - Larvae medium on plum and prune trees in Newcastle, Placer County. (Cal. Coop. Rpt.).

FLATHEADED APPLE TREE BORER (Chrysobothris femorata) - ALABAMA - Examination of large pecan grove in Mobile County indicates heavy populations present; buildup gradual over past few months. (Seibels).

TRUCK CROP INSECTS

BLACK CUTWORM (Agrotis ipsilon) - FLORIDA - Caused scattered damage to bean and crucifer plantings in Belle Glade area, Palm Beach County. Det. by W. G. Genung. (Fla. Coop. Sur., Nov. 30).

BEAN LEAF ROLLER (Urbanus proteus) - FLORIDA - Rather light on untreated beans in Belle Glade area, Palm Beach County. Det. by W. G. Genung. (Fla. Coop. Sur., Nov. 30).

TOMATO FRUITWORM (Heliothis zea) - ARIZONA - This species, BEET ARMYWORM (Spodoptera exigua) and CABBAGE LOOPER (Trichoplusia ni) continue troublesome on lettuce in Yuma County. (Ariz. Coop. Sur.).

GARDEN SYMPHYLAN (Scutigerella immaculata) - OHIO - Active and feeding heavily on leaf lettuce roots in greenhouse in Lancaster, Fairfield County. Many rootlets destroyed, resulting in stunted and dead plants; soil sterilization program in force. (Neiswander, Lyon). New county record.

GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) - OHIO - Light on leaf lettuce in greenhouse in Lancaster, Fairfield County; no economic damage. (Lyon).

CABBAGE MAGGOT (Hylemya brassicae) - CALIFORNIA - Larvae heavy in turnips in Hollister, San Benito County. (Cal. Coop. Rpt.).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - FLORIDA - Infested sweetpotato at Live Oak, Suwannee County. (Adkins, Nov. 19).

SWEETPOTATO WEEVIL (Cylas formicarius elegantulus) - FLORIDA - Infested sweetpotatoes at Electra, Marion County. (Graham, Nov. 20).

A SPIDER MITE (Panonychus sp.) - VIRGINIA - Caused heavy damage to blackberry leaves locally in Waynesboro, Augusta County, November 7. Det. by L. Cagle. Only eggs present on November 30. (Tarpley).

COTTON INSECTS

PINK BOLLWORM (Pectinophora gossypiella) - OKLAHOMA - Lint cleaner inspections in Greer, Harmon, Haskell, Jackson, McCurtain and Wagoner Counties negative. Positive inspections reported from Coal and Muskogee Counties. Gin trash inspections in Le Flore County negative. (Okla. Coop. Sur.).

BOLLWORM (Heliothis zea) - CALIFORNIA - This species and unspecified flower fly larvae continue to occur in gin trash survey in light to medium populations in Blythe, Riverside County. (Cal. Coop. Rpt.).

A NOCTUID MOTH (Proxenus mindara) - CALIFORNIA - Light larval populations continue in gin trash samples at Old River and Mettler Station, Kern County. (Cal. Coop. Rpt.).

A PYRAUSTID MOTH (Udea profundalis) - CALIFORNIA - Light larval populations continue in gin trash samples at Old River and Mettler Station, Kern County. (Cal. Coop. Rpt.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

BARK BEETLES - CALIFORNIA - New outbreak of Ips sp. and Dendroctonus valens in ponderosa pine in an area adjacent to a high value campground in Log Springs Campground area of Mendocino National Forest. (W. J. Bradley, USFS). Ips sp. infesting sugar pine and ponderosa pine crop trees in a thinned area in Minarets Ranger District and Lookout Point in Sierra National Forest. Insects not infesting the slash in these areas, but the crop trees. (M. Feinblum and J. Mount, USFS). Dendroctonus brevicomis and Ips sp. infesting ponderosa pines in a 200-acre stand in Villa Creek, 1,000 acres in Willow Creek, 500 acres in Logwood Creek-Cold Springs, 500 acres in Mill Creek and Pine Valley-Pine Ridge in Monterey District of Los Padres National Forest. Attacking all stages of trees in groups. (A. Cambell, USFS). D. brevicomis unusually heavy in local area of Mi-Wok District of Stanislaus National Forest, killing up to 96 ponderosa pines in a one and one-half acre area. Sanitation salvage to begin within 2-week period as all stages of beetle are present. (G. L. Roloff, USFS). Scolytus ventralis infesting all stages of white fir timber in Sattley area of Sierraville in Sierra County. A 20,000-acre stand of timber involved in this infestation. Logging is anticipated as a control. (W. Bemis, USFS).

A JAPANESE WEEVIL (Pseudocneorhinus bifasciatus) - VIRGINIA - Numerous adults received from Arlington County for identification. Reported as heavily attacking a number of plants. Det. by W. H. Matheny. (Tarpley, Nov. 19).

WHITE-PINE WEEVIL (Pissodes strobi) - OHIO - Larvae found in white pine trees at nursery in Trumbull County. Most infestations occur in northeast area of State; however, this pest not commonly found in State. (Kelly, Walker).

RED-HEADED ASH BORER (Neoclytus acuminatus) - TEXAS - Causing concern to homeowners in San Saba County. (Kidd).

A CYPRESS TWIG MOTH (Laspeyresia cupressana) - CALIFORNIA - Heavy populations occurring on cypress trees in Fremont, Alameda County. This moth has been reported more often this fall than other years. Although it is a common moth, it is apparently more noticeable this year. (Cal. Coop. Rpt.).

DOUGLAS-FIR TUSSOCK MOTH (Hemerocampa pseudotsugata) - CALIFORNIA - Probably effects of this species showing up now in Upper Grohl area of Tuolumne County where white fir trees have been extensively damaged. Many trees that would have gone into Christmas tree trade have been ruined. (R. H. Pland).

PINE TUBE MOTH (Argyrotaenia pinatubana) - OHIO - White pine found infested in a Cincinnati nursery in Hamilton County. Fifty percent of trees lightly damaged although a treatment program had been in force. (Cooley, Walker).

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - WISCONSIN - Examination of 21 nurseries in 10 counties previously infested with this species showed average percent infestation to be 13, with 20 percent of larvae dead and 7 percent parasitized. In addition, larvae found in Kenosha and Wood Counties and heavy infestations present in several nurseries in Racine and Kenosha Counties. Dominant pine species infested in counties were as follows: Outagamie - mugho, red, Austrian; Dodge - Scotch, red; Winnebago - Scotch, Austrian; Sheboygan - mugho; Manitowoc - mugho; Racine - red, mugho; Washington - Austrian; Jefferson - red, mugho; Milwaukee - mugho; Ozaukee - Austrian. (Wis. Ins. Sur.).

A PINE TIP MOTH (Rhyacionia sp., probably pasadenana) - CALIFORNIA - Heavy larval populations present in nursery stock pines in Colma, San Mateo County. (Cal. Coop. Rpt.).

MIMOSA WEBWORM (Homadaula albizziae) - KANSAS - Larvae collected from a black locust tree in Kansas City, Wyandotte County, in August 1961 by C. E. Stegmaier, Jr. Det. by H. W. Capps. This is the first and only record of this insect in the State. (Knutson, Thompson, Peters). CALIFORNIA - Butte County inspectors, aided by personnel of the Bureau of Entomology, completed host survey in Chico, Butte County. Entire city inspected with a buffer zone beyond any bordering infestation. Over 1,000 host trees were found, with a total of 660 properties infested. (Cal. Coop. Rpt.).

A CICADA - CALIFORNIA - Twig and branch dieback evident in Douglas-fir trees in Van Horn Gulch area, Siskiyou County, as the result of egg-laying punctures by undetermined species earlier in the season. (R. Rappleye, J. Vardanego, CDF).

PINE BARK APHID (Pineus strobi) - OHIO - Five white pines found heavily infested at commercial pheasant hunting property near Moreland, Wayne County. White, woolly patches completely covered trunk and limbs of 2 trees. (Griswold, Lyon).

GREEN PEACH APHID (Myzus persicae) - FLORIDA - Lightly infesting 600 chrysanthemum plants at Alva, Lee County, on November 26. (Walsh). CALIFORNIA - This species and Aphis sp. occurring on leaves and flowers of Zyga orchids in medium populations in Vista, San Diego County. (Cal. Coop. Rpt.).

CHRYSANTHEMUM APHID (Macrosiphoniella sanborni) - FLORIDA - Light on chrysanthemum at Ft. Myers, Lee County, on November 6 (Walsh) and at Lakeland, Polk County, on November 7 (Tyner).

COOLEY SPRUCE GALL APHID (Chermes cooleyi) - PENNSYLVANIA - Severely infesting blue spruce tree at Pittsburgh, Allegheny County, November 21. (Udine).

APHIDS - NEW MEXICO - Unspecified species extremely abundant on ornamental willows at Farmington, San Juan County. (N. M. Coop. Rpt.). OKLAHOMA - Unidentified species heavy on petunias in Marshall County, south central; honeydew present. (Okla. Coop. Sur.).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - OHIO - Moderate to heavy infestations observed on white pines at commercial pheasant hunting property near Moreland, Wayne County. Several pines, adjacent to heavily infested trees, dead. (Griswold, Lyon).

A SCALE INSECT (Phenacaspis cockerelli) - FLORIDA - Moderately infesting 250 Magnolia grandiflora trees at Lake Monroe, Seminole County, on November 11. (Youtsey, Holley). These plants have been quarantined for this scale insect. (Fla. Coop. Sur.).

BROWN SOFT SCALE (Coccus hesperidum) - PENNSYLVANIA - Collected in greenhouse on calamondin orange (Citrus mitis) in New Castle, Lawrence County, on November 22. Det. by G. B. Sleesman. (Simons).

CALIFORNIA RED SCALE (Aonidiella aurantii) - PENNSYLVANIA - Collected on podocarpus in greenhouse in New Castle,Lawrence County, on November 22. Det. by G. B. Sleesman. (Simons).

A CAMELLIA MINING SCALE (Pseudaonidia clavigera) - FLORIDA - Infestations light to moderate on camellia at St. Petersburg, Pinellas County, on November 27 (Miller) and Viburnum suspensum at Tampa, Hillsborough County, on November 30 (Bingaman, Eberenz).

CAMPHOR SCALE (Pseudaonidia duplex) - FLORIDA - Lightly infesting Camellia japonica at Lake Monroe, Seminole County, on November 30. (Youtsey).

OYSTERSHELL SCALE (Lepidosaphes ulmi) - OHIO - Small ash tree found seriously attacked near Apple Creek, Wayne County. Scales completely coated many twigs; 20-25 eggs per scale counted randomly from several locations. (Neiswander, Lyon).

NATIVE HOLLY LEAF MINER (Phytomyza ilicicola) - OHIO - Heavy damage observed on holly leaves at Wooster, Wayne County; 10-15 larval tunnels per leaf observed in random observations. (Neiswander, Lyon).

SPIDER MITES - NEW MEXICO - Light to moderate infestations damaging arborvitae foliage at Farmington, San Juan County. (N. M. Coop. Rpt.).

INSECTS AFFECTING MAN AND ANIMALS

BROWN DOG TICK (Rhipicephalus sanguineus) - ALABAMA - Extremely heavy populations reported from Escambia County; invaded several lawns of Brewton residential area. Populations reported from Russell County. (Barwood, Ledbetter). VIRGINIA - Heavily infesting dogs in a Richmond home. (Innes). CALIFORNIA - Medium populations occurring in a home in Coalinga, Fresno County; of considerable concern to owner. (Cal. Coop. Rpt.).

FLEAS (Ctenocephalides spp.) - OKLAHOMA - Reported causing some concern in homes in Stephens County area. (Okla. Coop. Sur.).

CATTLE LICE - OKLAHOMA - Light, local infestations of several species reported from Bryan, Okmulgee and Haskell Counties. (Okla. Coop. Sur.).

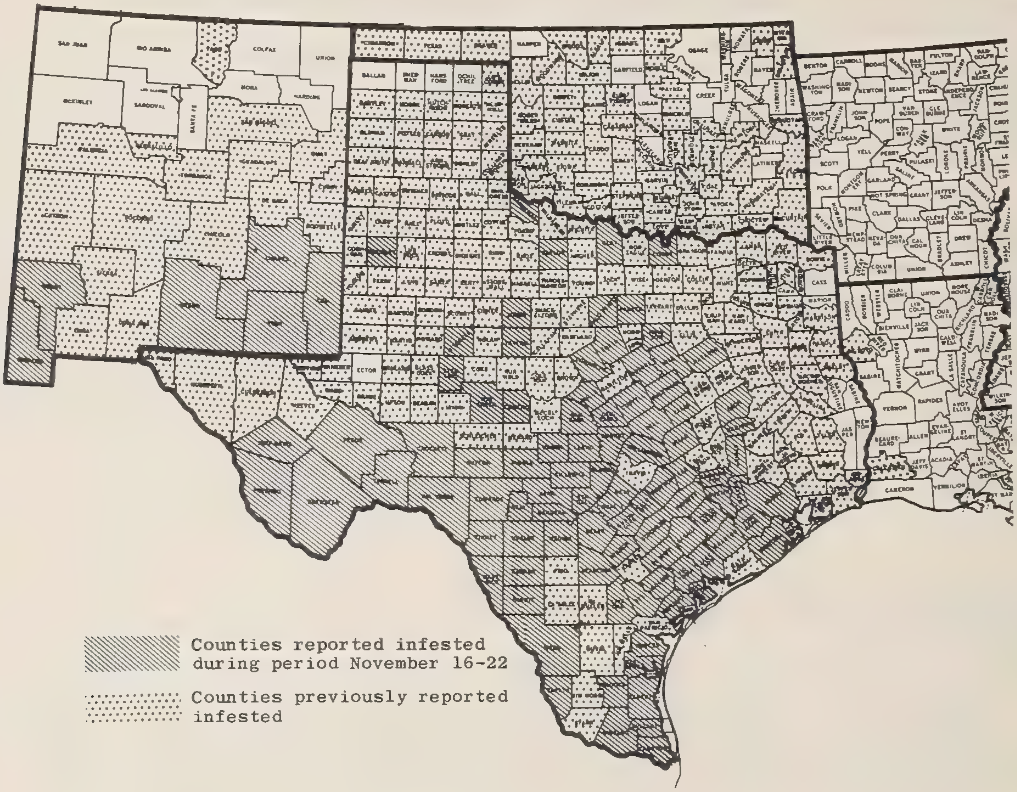
HOG LOUSE (Haematopinus suis) - OKLAHOMA - Reported on swine from Cotton and Okmulgee Counties. (Okla. Coop. Sur.).

COMMON CATTLE GRUB (Hypoderma lineatum) - OKLAHOMA - Light activity reported from Cotton, Stephens, Cleveland and Haskell Counties. (Okla. Coop. Sur.).

STATUS OF THE SCREW-WORM (Cochliomyia hominivorax) IN THE SOUTHWEST

During the period November 16-22, a total of 71,248,850 sterile flies was released over 73,000 square miles in Texas, 7,000 square miles of the average overwintering area of New Mexico, and 10,000 square miles in Mexico near the Rio Grande from Laredo to Brownsville. Sterile flies are presently being released in quantities to give the maximum benefit according to indicated native populations in the various zones. Southeastern portion of release zone is receiving sterile flies at rate of 400 per square mile. Northern region of release area in Texas, where populations are apparently the heaviest, is receiving sterile flies at rate of

1,000 per square mile. The overwintering area in New Mexico, the barrier zone of the Pecos region, and the region in Mexico will receive sterile flies at rate of 600 per square mile. Total of 410 screw-worm cases reported during this period. (Anim. Dis. Erad. Div.).


▨ Counties reported infested during period November 16-22
Counties previously reported infested

HOUSEHOLD AND STRUCTURAL INSECTS

EASTERN SUBTERRANEAN TERMITE (Reticulitermes flavipes) - OHIO - Workers feeding abundantly on discarded paper sacks at home in Loudonville, Knox County. Paper sacks severely perforated,with diagnostic symptoms of soil particles distributed throughout damaged area. (Sleesman, Lyon).

A POWDER-POST TERMITE (Cryptotermes brevis) - MARYLAND - Damaged basement cupboard in home at Kensington, Montgomery County, November 24; part of the wood came from Asia and apparently infestations existed for several years. All insects and infested wood destroyed. Det. by T. E. Snyder. (U. Md., Ent. Dept.).

EARWIGS - ARIZONA - Unspecified species continue pestiferous in homes in Phoenix area, Maricopa County, and Tucson area, Pima County. (Ariz. Coop. Sur.). NORTH CAROLINA - Considerable numbers of Labidura riparia found in bedding and chairs in home in Robeson County on November 18. Det. by A. B. Gurney. Undetermined species caused concern to homeowner in New Hanover County. (Wray, Robertson).

SPIDER BEETLES - PENNSYLVANIA - Eleven specimens of Gibbium psylloides and 1 specimen of Mezium affine collected from rug in home at Dover, York County. (Pepper, Nov. 21). OKLAHOMA - Ptinus sp. caused some concern in Sayre area, Beckham County. (Okla. Coop. Sur.).

DERMESTIDS (*Dermestes* spp.) - MARYLAND - *Dermestes* sp. numerous in home in Baltimore; source unknown. (U. Md., Ent. Dept.). NORTH CAROLINA - *D. maculatus* numerous in home in Wake County. (Wray, Nov. 15).

A WEEVIL (*Hypera brunneipennis*) - CALIFORNIA - Medium populations invading home and entering bedding in Riverside, Riverside County. (Cal. Coop. Rpt.).

A CARRION BEETLE (*Necrodes surinamensis*) - NORTH CAROLINA - Collected in home in Wake County. (Wray).

BROWN-BANDED COCKROACH (*Supella supellectilium*) - NEBRASKA - Present in home in Lincoln, Lancaster County. (Bergman).

ALMOND MOTH (*Ephestia cautella*) - CALIFORNIA - Medium in home in Santa Barbara, Santa Barbara County. (Cal. Coop. Rpt.).

INDIAN-MEAL MOTH (*Plodia interpunctella*) - NEBRASKA - Adults in barley, flour and popcorn in Boone County residence. (Bergman). CALIFORNIA - Heavy in home in Waterford, Stanislaus County; larvae infested home in Sacramento County. (Cal. Coop. Rpt.).

CLOVER MITE (*Bryobia praetiosa*) - NEW MEXICO - Beginning to enter homes in San Juan and Bernalillo Counties. (N. M. Coop. Rpt.).

STORED-PRODUCT INSECTS

CONFUSED FLOUR BEETLE (*Tribolium confusum*) - OHIO - Larvae and adults abundant among burlap sacks of cracked grain at grain elevator in Martinsburg, Knox County. (Lyon).

MEALYBUGS - TEXAS - Undetermined species on stored potatoes in several areas of State; feeding noted on and around "eyes." (Texas Coop. Rpt.).

NAVEL ORANGEWORM (*Paramyelois transitella*) - CALIFORNIA - Light larval infestations in date fruit in Bard, Imperial County. (Cal. Coop. Rpt.).

BENEFICIAL INSECTS

LADY BEETLES - OHIO - Several adults of *Coleomegilla maculata* observed at Toledo Area Sanitary District, Lucas County. (Griswold, Brockway). VIRGINIA - *Olla abdominalis sobrina* adults and pupae collected on maple in Richmond. (Tarpley, Davis).

A FIREFLY (*Lucidota corrusca*) - OHIO - Clusters of 5-6 adults under loose bark of elm near Wooster, Wayne County; many clusters present. (Griswold, Lyon).

MISCELLANEOUS INSECTS

IMPORTED FIRE ANT (*Solenopsis saevissima richteri*) - FLORIDA - Moderate in pasture soil at Lakeland, Polk County. (Tyner, Nov. 30); at Ruskin, Hillsborough County (Hale, Nov. 27); and in soil in citrus nursery at San Antonio, Pasco County (Sellars, Dec. 3). Collected for the first time in Alachua County, at Gainesville; bite-stings received show infection. (Hetrick, Dec. 5).

BAMBOO POWDER-POST BEETLE (*Dinoderus minutus*) - PENNSYLVANIA - Infesting bamboo garden rakes imported from Japan 6-12 months ago at King of Prussia, Montgomery County. Det. by T. J. Spilman. (Trout, Oct. 24).

HAWAIIAN INSECT NOTES

The following notes were submitted by the Hawaiian Entomological Society and were extracted from the "Notes and Exhibitions" in the minutes of the November 14, 1962, meeting.

AN ELATERID (*Conoderus* sp.) - Specimens were collected in light traps at Ewa and Waipio, Oahu, during October and November. Determination by Mr. R. H. Van Zwaluwenburg. The species is apparently not a North American form and is new to Hawaii. (J. W. Beardsley).

A LEAF MINER FLY (*Melanagromyza* sp., possibly *virens*) heavily damaged a number of safflower (*Carthamus tinctorius*) plants in an experimental planting at Kohala Sugar Company in Hawaii in October. Most of the plants received by the Hawaiian Sugar Planters' Association Entomology Department were dead or dying due to work of a stem borer. A number of adults of *Melanagromyza* sp. issued from these plants during the week following their receipt, and the larvae and puparia were found within the affected stems. (J. W. Beardsley).

A SCIOMYZID FLY (*Sepedon macropus*) - One adult was collected in a sweep net in the old Hawaiian salt beds of Kahua Ranch, Ewa, Oahu. This is the first recovery of an adult in this area which is 4 miles from the nearest release site. *S. macropus* is an introduced parasite of aquatic snails of the genus *Lymnaea*. (W. Mitchell).

Damage to pole beans by FIRE ANT (*Solenopsis geminata*) was observed in Makaha Valley, Oahu, on October 16. The area was dry and vegetation appeared to need water. Damage was characterized by discolored spots on the bean pods where the surface was scarified and eaten away. The feeding site tissues would dry up, collapse, and part of the pod drop off. A number of ants were observed feeding in a circle, heads toward the center, chewing away the epidermis. As they finished, they would back up and the scarified area would become larger. In several cases, they chewed through the shell, entered the pod and fed upon the beans. Some of the ants had nested in the pods. (W. Mitchell).

Larvae of *Melanagromyza virens* were found heavily infesting the stem and branches of a large cocklebur (*Xanthium* sp.) plant at Parker Ranch, Hawaii, on October 31. Several specimens of a PTEROMALID PARASITE (*Habrocytus* sp.) were reared from the *Melanagromyza*; this is a new island record for the pteromalid. *M. virens* was identified by D. Elmo Hardy and the pteromalid by J. W. Beardsley. (N. L. H. Krauss).

A WEEVIL (*Apion antiquum*) was bred from stems of the polygonaceous weed (*Emex australis*) collected at Parker Ranch, Hawaii, on October 31. One EUPELMID PARASITE (*Eupelmus cushmani*), and several wingless forms of the EUPELMID PARASITE (*Charitopodinus swezeyi*), were bred from the stems. *Eupelmus* is a parasite of various Coleoptera in Hawaii and *Charitopodinus* is a hyperparasite. The parasites were identified by J. W. Beardsley. The weed (*E. australis*) is troublesome in many parts of Australia, as in Hawaii. The weed (*Emex spinosa*) is also a pest in Hawaii. (N. L. H. Krauss).

The Brazilian LEAF MINING HISPID (*Uroplata girardi*) of lantana appears to be well on its way to successful establishment in east Lawai Valley, Kauai. On October 24, dozens of infested lantana leaves and one adult were observed in the vicinity of the release point. All stages of development were noted and it was estimated that the area of infestation covered approximately 4,000 square feet. (C. J. Davis).

The introduced PUNCTUREVINE WEEVIL (*Microlarinus lareynii*) was found in all stages of development at the release point of a 25-acre infestation of the noxious puncturevine (*Tribulus terrestris*) at Mana, Kauai, in October. A second crop of seed was developing and thousands of seedlings which had been "triggered" by recent rains were observed. This is an extremely favorable situation for the establishment of this weevil and the spread of M. lareynii throughout much of the 25-acre infestation within the next 6 months is anticipated. (C. J. Davis).

A heavy infestation of LAWN ARMYWORM (Spodoptera mauritia acronyctoides) at Oili Loop, Waialae Nui, was confirmed recently. Heavy populations of young to mature larvae were found feeding on Tifton 358, a relatively new lawn grass. Only a few tachinid parasites were observed. (James Kim, C. J. Davis).

BOLL WEEVIL HIBERNATION SURVEYS IN NORTH AND SOUTH CAROLINA, MISSISSIPPI AND LOUISIANA - FALL 1962

The fall collection of surface ground (woods) trash samples (two square yards per sample) have been completed in 4 southern states by Federal agencies to determine the number of boll weevil (Anthonomus grandis) adults that went into hibernation. The same areas were sampled as in the fall of 1961 in each of the states. A total of 3 samples was collected at each location in all states. In North and South Carolina, 30 locations were sampled, with the number of counties per area from which samples were taken varying from 3 to 6. A total of 40 locations was sampled in northeastern Louisiana; 10 each in East Carroll and Tensas Parishes and 20 in Madison Parish. In Mississippi, either 7 or 8 locations were sampled in each of the 4 areas. Wherever possible, the samples were taken from locations that could be sampled again in the spring of 1963.

Average counts (live weevils per acre) this past fall exceeded those of the 1961 survey in areas 1, 3 and 4 in North and South Carolina, and area 3 in Mississippi, while those in the tri-parish area of northeastern Louisiana, areas 1, 2 and 4 in Mississippi and area 2 in North and South Carolina were lower than in 1961 (see table on following page).

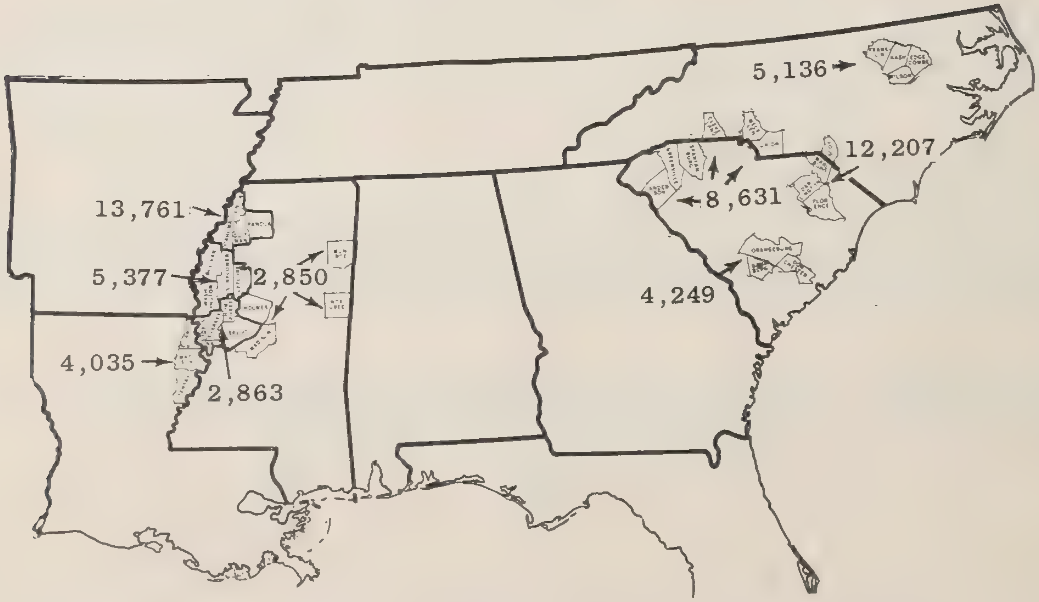
The average of 3,712 found this year in Madison Parish, Louisiana,was exceeded only 9 times before in 27 years of record. The counts were higher (4,358) in 1961, however. The average number of live weevils in the other two Louisiana Parishes in 1962 was 6,295 in East Carroll and 2,098 in Tensas. During the past 8 years that these records have been made in the tri-parish area, the number of weevils per acre has ranged from 2,622 to 13,443 and averaged 6,013 in Madison Parish; 5,165 to 13,235 and averaged 8,531 in East Carroll Parish; and 0 to 17,593 and averaged 7,248 in Tensas Parish.

Fall examinations made since 1942, with the exception of the fall of 1946, show that the number of weevils found per acre in Florence County, South Carolina, during the fall of 1962 (14,042) is 2.2 times the average for the 20 years that such examinations have been made. This is the highest number of weevils ever found in the fall examinations in Florence County.

The 1962 State average for Mississippi was 6,213 live weevils per acre, compared with 8,403 in 1961, 14,502 in 1960, 5,127 in 1959, 3,792 in 1958 and 6,715 in 1957. (A. R. Hopkins, H. M. Taft, M. E. Merkl, G. L. Smith).

	Number of Weevils Per Acre	
Area (County and State)	1961	1962
NORTH AND SOUTH CAROLINA		
South Central South Carolina (Orangeburg, Bamberg, Dorchester Counties (area 1)).	3,361	4,249
Coastal Plain of South and North Carolina (Florence, Darlington and Marlboro Counties, S.C.; Scotland County, N.C. (area 2)).	13,632	12,207
Piedmont of South and North Carolina (Anderson, Greenville and Spartanburg Counties, S.C.; Mecklenburg, Cleveland and Union Counties, N.C. (area 3)).	8,373	8,631
North Central North Carolina (Nash, Wilson, Franklin and Edgecombe Counties (area 4)).	3,173	5,136
MISSISSIPPI		
Lower Delta (Sharkey, Issaquena, Yazoo and Humphreys Counties (area 1)).	5,753	2,863
Central Delta (Washington, Bolivar, Sunflower and Leflore Counties (area 2)).	11,114	5,377
North Delta (Coahoma, Tunica, Quitman and Panola Counties (area 3)).	9,524	13,761
Hill Section (Holmes, Madison, Noxubee and Monroe Counties (area 4)).	7,222	2,850
LOUISIANA		
Northeastern (East Carroll, Madison and Tensas Parishes)	10,330	4,035

BOLL WEEVIL HIBERNATION SURVEYS - FALL 1962



Fall Census of Forage Crop Insects in Massachusetts

F. R. Shaw and W. J. Fischang [1]

During the period from 1958 through 1961, we have made extensive studies of the insect populations on forage crops in Massachusetts throughout the growing season. In 1962, as a result of the revision of our forage crop insect project, investigations of forage insect abundance and distribution were greatly curtailed, except for the ALFALFA WEEVIL (Hypera postica).

In order to have some information concerning the abundance and distribution of ALFALFA WEEVIL, LEAFHOPPERS and MEADOW SPITTLEBUG (Philaenus spumarius) primarily, we conducted a survey of 25 fields of alfalfa or alfalfa combinations in October 1962. Collections were made in Berkshire, Franklin, Hampden, Hampshire, Bristol, Plymouth, Essex and Middlesex Counties.

Collections were made by taking 100 sweeps with a 15" net. The insects were then killed and stored in cardboard containers until they could be identified. We recorded only the insects of economic importance, representing approximately 10,000 individuals. The data obtained appear in Table I on following page.

As far as the percentage of each group of insects is concerned, the data obtained in the 1962 fall survey agrees in general with that for the entire season of 1961. In some instances, there were considerable differences, which we wish to discuss further.

In 1961, leafhoppers comprised 12.1 percent of the total collection; In October 1962, they represented 12.3 percent. The most abundant species in 1961 included POTATO LEAFHOPPER (Empoasca fabae), SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons), CLOVER LEAFHOPPER (Aceratagallia sanguinolenta) and Graminella nigrifrons in that order. In the 1962 fall collection, SIX-SPOTTED LEAFHOPPER represented only 2.3 percent of all leafhoppers, while Endria inimica was the most abundant species. It should be noted that in 1961 SIX-SPOTTED LEAFHOPPER was most abundant in early summer, and E. inimica was primarily a fall species. Thus there is more similarity between the two years' collections than is first apparent. In Berkshire County, Errastunus ocellaris was conspicuously abundant for the first time, comprising 4.7 percent of all leafhoppers.

In 1961, beetles represented 3.6 percent of the total, with the ALFALFA WEEVIL (Hypera postica) being most abundant (38.8 percent of all beetles). In 1962, we observed the maximum populations of alfalfa weevil that we have had. In late May, we collected as many as 12 (larvae and adults) per sweep in Berkshire County. The highest counts in our fall survey included 14 adults and 15 larvae per 100 sweeps in Easton (Bristol County), 6 adults and 27 larvae in Southwick (Hampden County) and 3 adults and 10 larvae in Topsfield (Essex County). Counts in other counties averaged less than 10 weevils per 100 sweeps.

It is of interest that the percentage of CLOVER ROOT CURCULIO (Sitona hispidula) was greater in the 1962 fall collections than in 1961. It represented 41.6 percent of all beetles in 1962 but only 6.9 percent for the year's collections in 1961. A JAPANESE WEEVIL (Calomycterus setarius) also increased from only 1.2 percent of all beetles in 1961 to 8.0 percent in 1962.

Beneficial insects and allies represented 7.8 percent of the 1962 total as compared with 2.6 percent in 1961. A DAMSEL BUG (Nabis ferus) represented 49.2 percent of all beneficial forms, an increase of 28.1 percent over 1961 (or 11.2 percent over October collections of 1961). COCCINELLIDS amounted to 27.8 percent in 1961 but decreased to 20.7 percent in October 1962. SPIDERS increased from 0.5 percent of beneficial forms in 1961 to 1.3 percent in the fall of 1962. A FLOWER BUG (*Orius insidiosus*), which represented 41.3 percent of the beneficial species in 1961, was reduced in relative numbers and was included in the miscellaneous beneficial group in 1962.

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[1] Contribution #1357 from the Department of Entomology and Plant Pathology, University of Massachusetts, Amherst, Massachusetts.

Table I. Census of Forage Crop Insects in Massachusetts, October 1962

Insect Name or Group	Percent of Group	Percent of Total	
Aphids			63.8
Macrosiphum pisi			
Leafhoppers			12.3
Endria inimica	27.9	3.4	
Empoasca fabae	26.3	3.2	
Aceratagallia sanguinolenta	20.5	2.5	
Graminella nigrifrons	7.8	1.0	
Errastunus ocellaris	4.7	0.6	
Scaphytopius acutus	4.0	0.5	
Helochara communis	3.8	0.5	
Macrosteles fascifrons	2.2	0.3	
Miscellaneous leafhoppers	2.6	0.3	
Plant bugs			8.6
Lygus lineolaris	89.3	7.7	
Adelphocoris lineolatus	5.9	0.5	
Adelphocoris rapidus	3.5	0.3	
Miscellaneous plant bugs	1.3	0.1	
Beetles			4.5
Sitona hispidula	41.6	1.9	
Hypera postica	39.2	1.8	
Calomycterus setarius	8.0	0.4	
Popillia japonica	7.6	0.3	
Miscellaneous beetles	3.6	0.2	
Spittlebugs			1.9
Philaenus spumarius			
Lepidoptera			0.6
Grasshoppers			0.5
Beneficial insects and allies			7.8
Nabis ferus	49.2	3.9	
Coccinellids	20.7	1.6	
Spiders	17.1	1.3	
Chrysopids	8.8	0.7	
Miscellaneous beneficial	4.2	0.3	

Percentages calculated to nearest tenth.

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